

ACCESS ANALYSIS
SANYO LOGISTICS CENTER
City of San Diego, California
April 2021
PTS 668005

LLG Ref. 3-20-3245

EXECUTIVE SUMMARY

Linscott, Law & Greenspan Engineers (LLG) has prepared this access analysis to assess the potential transportation impacts associated with the Sanyo Logistics Center (“Project”) in the Otay Mesa Community within the City of San Diego. The Project site is a vacant site zoned IL-2-1 (Industrial Business and Trade) located on the west side of Sanyo Avenue, north side of Airway Road in the Otay Mesa Community in the City of San Diego. The project requires a Site Development Permit.

The proposed Project includes the construction of 232,969 square feet (sf) of warehousing and distribution use, and 10,000 sf of multi-tenant office use for a total development size of 242,969 sf. The proposed Project land uses were deemed consistent with the Otay Mesa Community Plan and therefore, the Proposed Project intends to prepare an Addendum to the approved Otay Mesa Community Plan EIR, and thereby focuses on Level of Service as the appropriate CEQA metric to evaluate transportation impacts.

Existing traffic counts for the project were developed using available Year 2019 counts and historical counts from approved projects in the area using a growth factor to reflect a Year 2019 traffic volume baseline.

Based on the proposed land use types, the rates for “warehousing” and “commercial office” found in the City of San Diego’s *Trip Generation Manual, May 2003* were used for the proposed Project. The total Project is calculated to generate approximately 1,462 ADT with 214 trips (158 inbound / 56 outbound) during the AM peak hour and 229 trips (83 inbound / 146 outbound) during the PM peak hour.

Access to the Project site is proposed via two (2) driveways on Airway Road and one (1) driveway on Sanyo Avenue. The westerly driveway on Airway Road will be used by light-vehicles only and will be restricted by a raised median to allow right-in and right-out movements only. The easterly driveway on Airway Road will be used by trucks accessing the site and would allow right-in, right-out and left-in movements while prohibiting left-turn outbound movements. The driveway on Sanyo Avenue will allow full movements and be used by light vehicles only.

Project traffic was distributed and assigned to the street system based on the number of loading docks (45), existing traffic patterns in the area, review of trip distribution of similar land uses from recently approved development projects in the vicinity, anticipated traffic patterns to and from the site, and the Project’s proximity to state highways and arterials.

A total of nineteen (19) cumulative projects were identified for consideration in the Near-Term (Opening Year 2022) scenarios.

Based on the City of San Diego’s significance criteria, **significant direct project impacts are** identified on the following segments as the Project traffic contribution exceeds the allowable threshold.

- La Media Road, from SR 905 EB Ramps to Airway Road

- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

To mitigate the Project's impact to below a level of significance on La Media Road between SR 905 EB ramps and Airway Road, the project will widen La Media Road on the east side to construct a second northbound through lane from Airway Road to approximately 600 feet north of Airway Road, where the road is already widened to three through lanes. This mitigation measure has already been proposed as part of the Airway Logistics Center project (PTS #665589). The Airway Logistics Center is anticipated to complete this improvement, which would reduce the proposed project's impact to less than significant. If the additional northbound lane is not constructed by the Airway Logistics project, the proposed project would construct this improvement to reduce the impact to below a level of significance. This mitigation will be permitted and bonded by the project prior to the issuance of the first building permit and will be completed and operational prior to the issuance of any occupancy permit.

To mitigate the Project's impact to below a level of significance on Airway Road between the Project driveways and Sanyo Avenue, as a part of the Project frontage improvements, consistent with the Airway Road ultimate classification of a 4-lane Major, per the City of San Diego Street Design Manual, the Project is proposing to widen Airway Road along the Project frontage by 38 feet from the centerline and provide a 22-foot parkway (6-foot non-contiguous sidewalk and 16-foot landscape buffer) to provide the ultimate roadway width. The Project will dedicate between 11 feet and 40 feet along its frontage on Airway Road.

In addition to the above improvements, as a part of the Project frontage improvements, consistent with the Sanyo Avenue ultimate classification of a 4-lane Collector with a two-way left-turn lane (82 feet curb-to-curb), per the City of San Diego Street Design Manual, the Project is proposing to widen Sanyo Avenue along the Project frontage by 41 feet from the centerline and provide a 14-foot parkway (5-foot non-contiguous sidewalk and 9-foot landscape buffer) to provide the ultimate roadway width. The Project will dedicate 13 feet along its frontage on Sanyo Avenue.

The City of San Diego minimum parking requirements for the proposed Project were also evaluated. The project intends to slightly exceed the City's parking requirements.

As part of the project frontage improvements, to enhance pedestrian mobility, the project will construct non-contiguous sidewalks on Airway Road and Sanyo Avenue. To promote bicycle mobility, the project will construct buffered bike lanes on the north side of Airway Road and west side of Sanyo Avenue.

The Project proposes access to the site via two (2) driveways on Airway Road and one (1) driveway on Sanyo Avenue. The westerly driveway on Airway Road will be used by light-vehicles only and will be restricted by a raised median to allow right-in and right-out movements only. The easterly driveway on Airway Road will be used by trucks accessing the site and would allow right-in, right-out and left-in movements while prohibiting left-turn outbound movements. The driveway on Sanyo

Avenue will allow full movements and be used by light vehicles only. A queuing analysis was conducted for the eastbound left-turn pocket at the easterly driveway, which showed a 95th percentile queue length of 55 feet for both the AM and PM peak hours under the Existing + Project and Near-Term (Opening Year 2022) + Project scenarios, which is accommodated within the proposed left-turn pocket storage of 160 feet and therefore, no queuing issues are identified.

TABLE OF CONTENTS

SECTION	PAGE
1.0 Introduction.....	1
2.0 Project Description	4
3.0 Existing Conditions.....	6
3.1 Existing Street Network.....	6
3.2 Existing Traffic Volumes.....	7
4.0 Analysis Approach and Methodology	11
4.1 Intersections	11
4.2 Street Segments.....	11
5.0 Significance Criteria	12
6.0 Analysis of Existing Conditions	14
6.1 Peak Hour Intersection Levels of Service.....	14
6.2 Daily Street Segment Levels of Service	14
7.0 Trip Generation/Distribution/Assignment	17
7.1 Trip Generation.....	17
7.2 Trip Distribution/Assignment	17
8.0 Analysis of Existing + Project Conditions	20
8.1 Peak Hour Intersection Levels of Service.....	20
8.2 Daily Street Segment Levels of Service	20
9.0 Cumulative Projects.....	24
10.0 Analysis of Near-Term (Opening Year 2022) Conditions	29
10.1 Near-Term Network Assumptions.....	29
10.2 Near-Term Traffic Volumes	29
10.3 Near-Term (Opening Year 2022) Analysis.....	29
10.3.1 Peak Hour Intersection Levels of Service.....	29
10.3.2 Daily Street Segment Levels of Service	29
10.4 Near-Term (Opening Year 2022) + Project Analysis	29
10.4.1 Peak Hour Intersection Levels of Service.....	29
10.4.2 Daily Street Segment Levels of Service	30
11.0 Site Access and Active Transportation	35
11.1 Access and Frontage Improvements	35

11.2 Pedestrian, Bicycle and Transit Mobility.....	36
12.0 Parking.....	37
12.1 Automobile Parking Requirements.....	37
12.2 Motorcycle Parking Requirements	37
12.3 Bicycle Parking Requirements.....	37
12.4 Carpool, Electric Vehicles (EV's) and Zero Emission Vehicles Parking Requirements .	38
13.0 Significance of Impacts and Mitigation Measures.....	39
13.1 Significance of Impacts.....	39
Intersections	39
Street Segments.....	39
13.2 Mitigation.....	39

APPENDICES

APPENDIX

- A. Intersection and Segment Manual Count Sheets; Historical Counts Comparison
- B. Intersection Methodology and Analysis Sheets
- C. City of San Diego Roadway Classification Table
- D. Existing Intersection Level of Service Worksheets
- E. Existing + Project Intersection Level of Service and Queuing Analysis Worksheets
- F. Cumulative Projects Information
- G. Near-Term (Opening Year 2022) Intersection Level of Service Worksheets
- H. Near-Term (Opening Year 2022) + Project Intersection Level of Service and Queuing Analysis Worksheets
- I. Project Driveways and Frontage Improvement Design
- J. Conceptual Striping Plan

LIST OF FIGURES

SECTION—FIGURE #	FOLLOWING PAGE
Figure 1–1 Vicinity Map	2
Figure 1–2 Project Area Map	3
Figure 2–1 Site Plan	5
Figure 3–1 Existing Conditions Diagram.....	9
Figure 3–2 Existing Traffic Volumes.....	10
Figure 7–1 Project Traffic Distribution.....	18
Figure 7–2 Project Traffic Volumes.....	19
Figure 8–1 Existing + Project Traffic Volumes	23
Figure 9–1 Cumulative Projects Location Map	27
Figure 9–2 Cumulative Projects Traffic Volumes	28
Figure 10–1 Near-Term (Opening Year 2022) Traffic Volumes	33
Figure 10–2 Near-Term (Opening Year 2022) + Project Traffic Volumes	34

LIST OF TABLES

SECTION—TABLE #	PAGE
Table 5–1 City Of San Diego Traffic Impact Significant Thresholds	13
Table 6–1 Existing Intersection Operations.....	15
Table 6–2 Existing Street Segment Operations	16
Table 7–1 Project Trip Generation	17
Table 8–1 Existing + Project Intersection Operations	21
Table 8–2 Existing + Project Street Segment Operations.....	22
Table 9–1 Cumulative Projects	25
Table 10–1 Near-Term Intersection Operations	31
Table 10–2 Near-Term Street Segment Operations.....	32
Table 11–1 Queue Summary	35
Table 13–1 Existing + Project Post-Mitigation Street Segment Analysis	41
Table 13–2 Near-Term (Opening Year 2022) Post-Mitigation Street Segment Analysis	42

ACCESS ANALYSIS
SANYO LOGISTICS CENTER
City of San Diego, California
April 2021

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has prepared this access analysis to assess the potential transportation impacts associated with the Sanyo Logistics Center (“Project”) in the Otay Mesa Community within the City of San Diego. The Project site is vacant site zoned IL-2-1 (Industrial Business and Trade) located on the west side of Sanyo Avenue, north side of Airway Road, in the Otay Mesa Community in the City of San Diego. The project requires a Site Development Permit. *Figure 1-1* shows the vicinity map. *Figure 1-2* shows a more detailed project area map.

The following items are included in this access analysis:

- Project Description
- Existing Conditions Discussion
- Analysis Approach and Methodology
- Significance Criteria
- Existing Conditions Analysis
- Cumulative Projects Discussion
- Trip Generation/Distribution/Assignment
- Near-Term Analysis
- Site Access and Active Transportation
- Parking
- Significant Project Impacts and Mitigation Measures

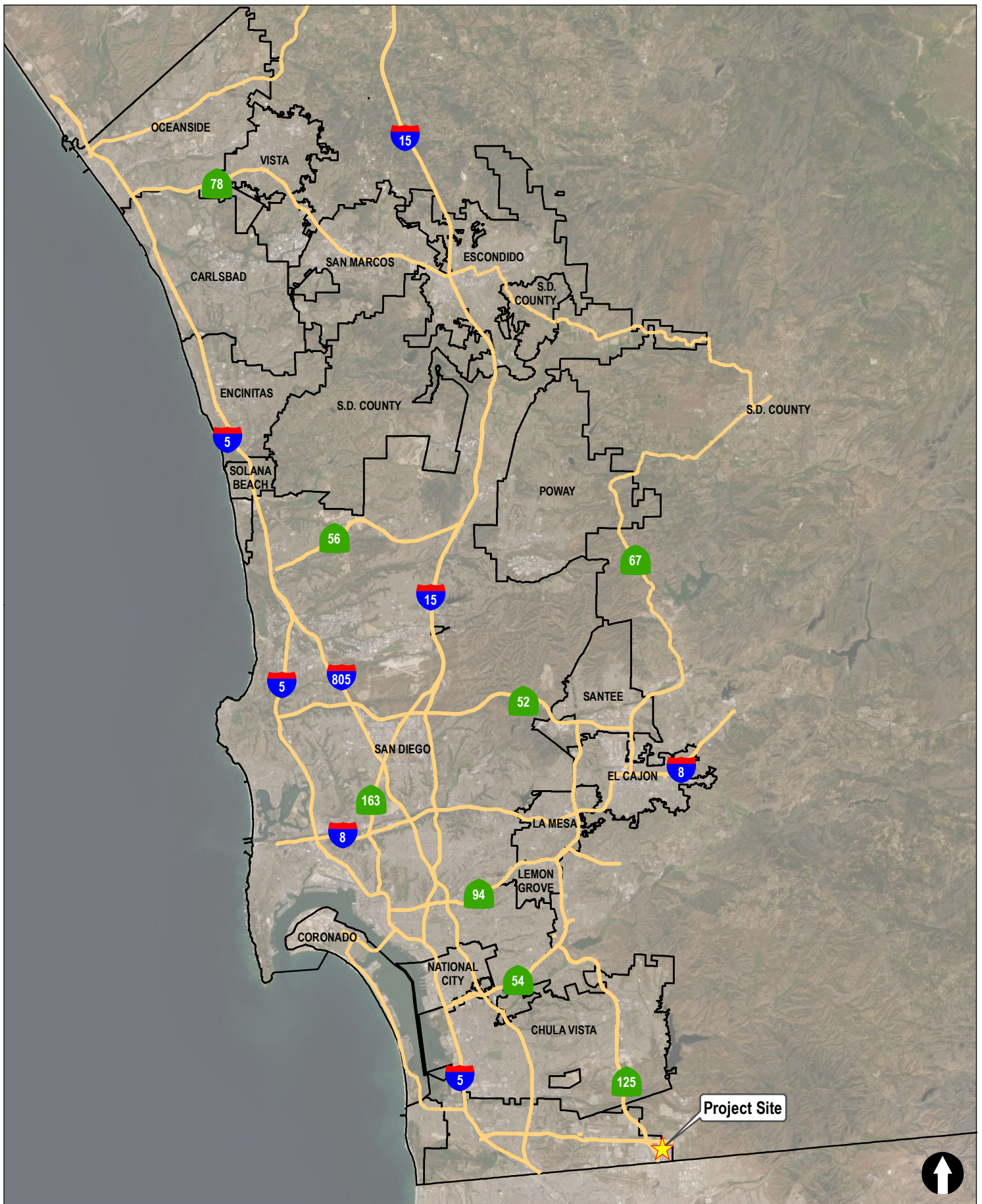
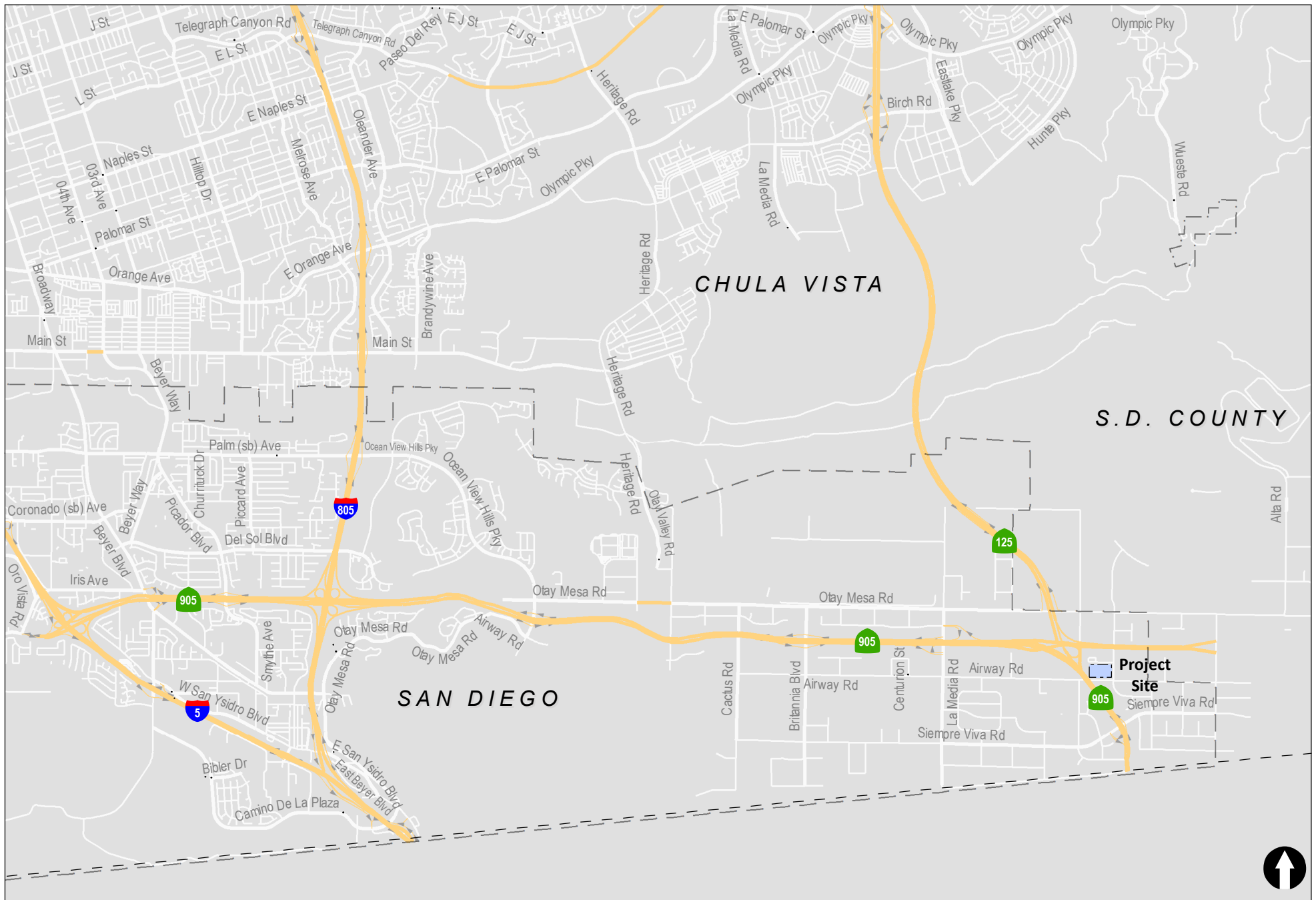


Figure 1-1

Vicinity Map

Sanyo Logistics Center



2.0 PROJECT DESCRIPTION

The proposed Project includes the construction of 232,969 square feet (sf) of warehousing and distribution use, and 10,000 sf of multi-tenant office use for a total development size of 242,969 sf. The Project site is located on the west side of Sanyo Avenue, north side of Airway Road in the Otay Mesa Community in the City of San Diego. Access to the site is proposed via three (3) driveways with one driveway on Sanyo Avenue and two driveways on Airway Road. The proposed Project land uses were deemed consistent with the Otay Mesa Community Plan and therefore, the Proposed Project intends to prepare an Addendum to the approved Otay Mesa Community Plan EIR, and thereby focuses on Level of Service as the appropriate CEQA metric to evaluate transportation impacts. The Project requires a Site Development Permit from the City of San Diego. **Figure 2-1** shows the proposed site plan.

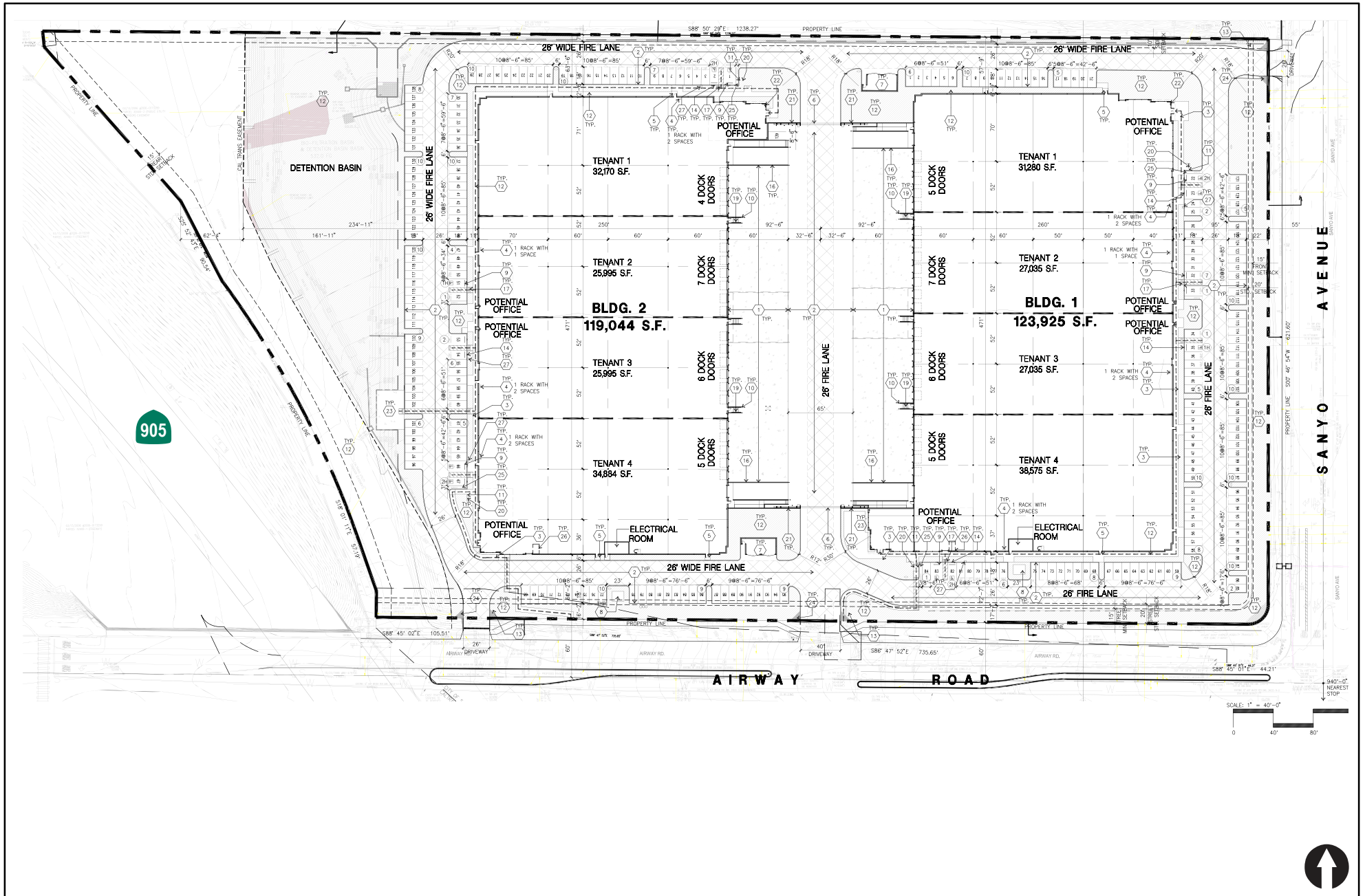


Figure 2-1

Project Site Plan

SANYO LOGISTICS CENTER

3.0 EXISTING CONDITIONS

Evaluation of the traffic impacts associated with the proposed Project requires an understanding of the existing transportation system within the project area. **Figure 3-1** shows an existing conditions diagram, including intersection traffic control type and lane configurations. The study area includes the following intersections and street segments based on the anticipated distribution of the project traffic:

Intersections:

1. La Media Road / SR 905 WB Ramps
2. La Media Road / SR 905 EB Ramps
3. La Media Road / Airway Road
4. Sanyo Avenue / Otay Mesa Road
5. Sanyo Avenue / Project Driveway (north) (*Does not exist*)
6. Sanyo Avenue / Airway Road
7. Airway Road / Harvest Road
8. Airway Road / Project Driveway (west) (*Does not exist*)
9. Airway Road / Project Driveway (east) (*Does not exist*)

Segments:

La Media Road

- SR 905 WB Ramps/St. Andrews Avenue to SR 905 EB Ramps
- SR 905 EB Ramps to Airway Road

Sanyo Avenue

- Otay Mesa Road to Project Driveway (north)
- Project Driveway (north) to Airway Road

Otay Mesa Road

- Harvest Road to Sanyo Avenue

Airway Road

- La Media Road to Harvest Road
- Harvest Road to Project Driveway (west)
- Project Driveway (west) to Project Driveway (east)
- Project Driveway (east) to Sanyo Avenue

3.1 Existing Street Network

The following is a description of the existing street network in the study area.

State Route 905 (SR 905) is a 6-lane freeway that provides a direct east-west connection from I-805 to the Otay Mesa Port of Entry. The posted speed limit is 65mph.

Airway Road is currently constructed as a 2-lane Collector between La Media Road and Harvest Road; as a 3-lane Collector (2 westbound lanes and 1 eastbound lane) between Harvest Road and approximately 700' east; as a 2-lane Collector with intermittent turn lanes between approximately 700' east of Harvest Road and Sanyo Avenue and as a 4-lane Major Arterial east of Sanyo Avenue. Airway Road between La Media Road and Sanyo Avenue is classified as a 4-lane Major Road in the City's *Otay Mesa Community Plan Mobility Element*. Curbside parking is prohibited, and there are no existing bike lanes on Airway Road. Per the Otay Mesa Community Plan, Class II bicycle lanes are planned on Airway Road between La Media Road and Sanyo Avenue. Contiguous sidewalks are provided intermittently on Airway Road between La Media Road and Sanyo Avenue with no sidewalk on Airway Road along the project frontage. The posted speed limit is 40 mph.

Sanyo Avenue is currently constructed as a 4-lane Collector (without a two-way left-turn lane) between Otay Mesa Road and Airway Road. Sanyo Avenue between Otay Mesa Road and Airway Road is classified as a 4-lane Collector with two-way left-turn lane in the City's *Otay Mesa Community Plan Mobility Element*. Curbside parking is prohibited, and bike lanes are provided on both sides. Contiguous sidewalks are provided on Sanyo Avenue between Otay Mesa Road and Airway Road. Bus stops for MTS Route 909 are located on both sides of Sanyo Avenue, south of Otay Mesa Road. The posted speed limit is 45 mph.

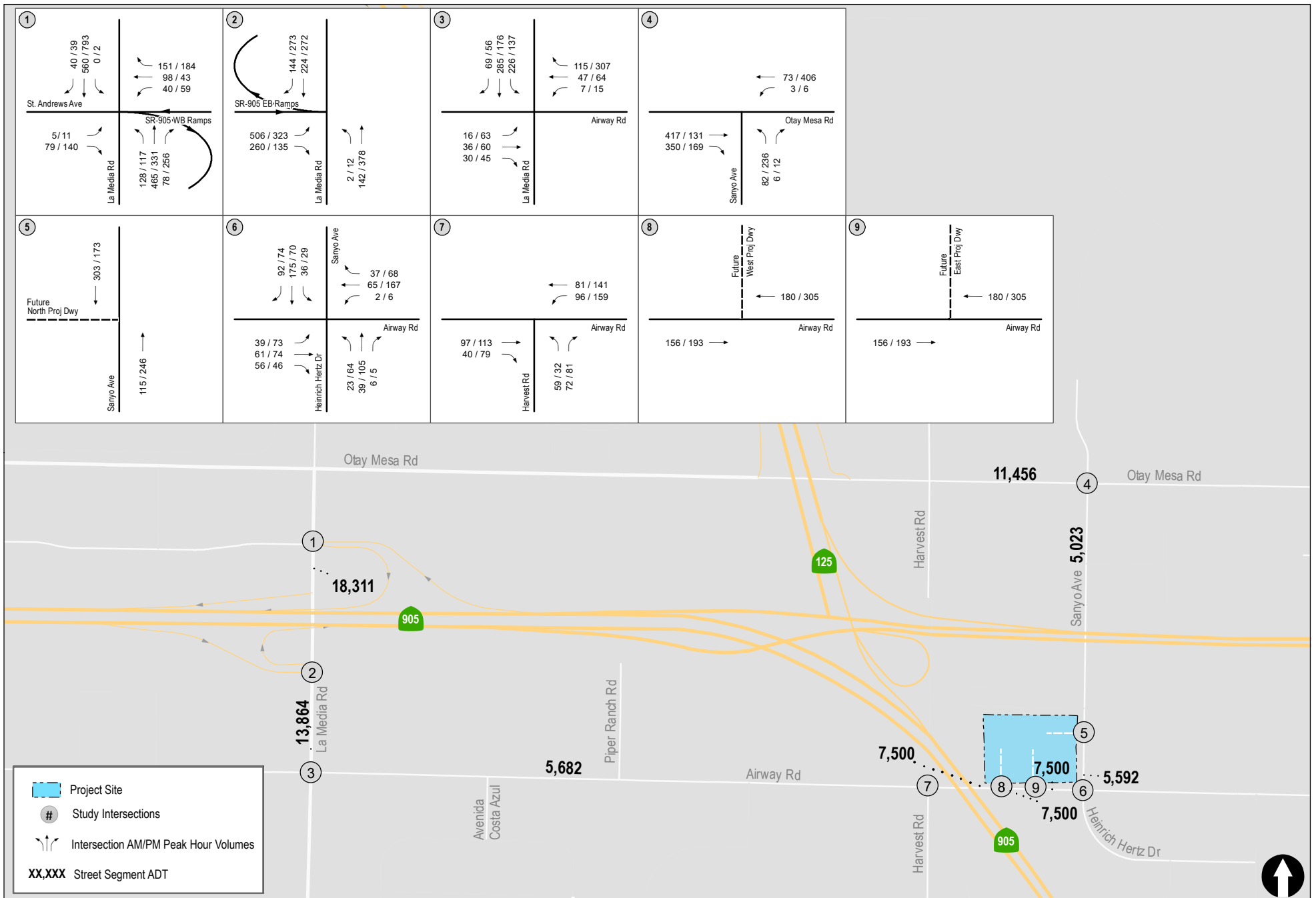
La Media Road is currently constructed as a 6-lane Prime Arterial between SR 905 WB Ramps and SR 905 EB Ramps and as a 3-lane Collector (2 southbound lanes and 1 northbound lane) between SR 905 EB Ramps and Airway Road. La Media Road is classified as a 6-lane Prime Arterial from SR 905 to Airway Road in the City's *Otay Mesa Community Plan Mobility Element*. Curbside parking is prohibited. Bike lanes are provided on both sides of La Media Road between Otay Mesa Road and SR 905 EB ramps; however, only a southbound bike lane exists between SR 905 EB ramps and Airway Road. Contiguous sidewalks are provided on both sides of La Media Road between Otay Mesa Road and SR 905 EB ramps; however, a sidewalk exists only on the west side of La Media Road between SR 905 EB ramps and Airway Road. Bus stops for MTS Route 905 are provided on La Media Road. The posted speed limit is 35 mph.

Otay Mesa Road is currently constructed as a 4-lane Collector with a striped median between Harvest Road and Sanyo Avenue. Otay Mesa Road between Harvest Road and Sanyo Avenue is classified as a 6-lane Prime Arterial in the City's *Otay Mesa Community Plan Mobility Element*. Curbside parking is prohibited, and bike lanes are provided on both sides. Contiguous sidewalks are provided on Otay Mesa Road between Harvest Road and Sanyo Avenue on the south side. The posted speed limit is 50 mph.

3.2 Existing Traffic Volumes

Given the changes in travel patterns and lower activity due to the CoVid-19 pandemic, existing traffic counts were unable to be conducted. Therefore, existing (Year 2019) traffic volumes were developed for the proposed project based on a methodology based on historical traffic counts coordinated with the City of San Diego Transportation Development staff using the NCHRP 255 Appendix Chapter 8 as included in *Appendix A*.

Figure 3–2 shows the Existing Traffic Volumes. **Appendix A** contains the existing volume methodology, available traffic counts and traffic volume development tables.



4.0 ANALYSIS APPROACH AND METHODOLOGY

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

4.1 Intersections

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 19 of the *Highway Capacity Manual 6th Edition (HCM 6)*, with the assistance of the *Synchro 10* computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS). Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix B**.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapter 20 of the *Highway Capacity Manual 6th Edition (HCM 6)*, with the assistance of the *Synchro 10* computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in **Appendix B**.

Vehicle classification counts were reviewed from the Sunroad Otay Mesa Transportation Impact Analysis (February 2018). Based on the vehicle classification counts and to maintain consistency with other transportation studies conducted in the area, a 16% heavy vehicle factor was applied to all study intersections for this analysis.

4.2 Street Segments

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of San Diego's *Roadway Classification, Level of Service, and ADT Table*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The City of San Diego's *Roadway Classification, Level of Service, and ADT Table* is attached in **Appendix C**.

5.0 SIGNIFICANCE CRITERIA

According to the City of San Diego's *Significance Determination Thresholds* dated July 2016, a project is considered to have a significant impact if project traffic would decrease the operations of surrounding roadways by a defined threshold. The City defined thresholds are shown in **Table 5-1**.

The impact is designated either a "direct" or "cumulative" impact. According to the City's *Significance Determination Thresholds*,

"Direct traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (near term)."

"Cumulative traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when affected community plan area reaches full planned buildout (long-term cumulative)."

It is possible that a project's near term (direct) impacts may be reduced in the long term, as future projects develop and provide additional roadway improvements (for instance, through implementation of traffic phasing plans). In such a case, the project may have direct impacts but not contribute considerably to a cumulative impact."

For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions."

If the project exceeds the thresholds in *Table 5-1*, then the project is considered to have a significant "direct" or "cumulative" project impact. A significant impact can also occur if a project causes the Level of Service to degrade from D to E, even if the allowable increases in *Table 5-1* are not exceeded. A feasible mitigation measure will need to be identified to return the impact within the City thresholds, or the impact will be considered significant and unmitigated.

TABLE 5-1
CITY OF SAN DIEGO
TRAFFIC IMPACT SIGNIFICANT THRESHOLDS

Level of Service with Project ^b	Allowable Increase Due to Project Impacts ^a	
	Roadway Segments	Intersections
	V/C	Delay (sec.)
E	0.02	2.0
F	0.01	1.0

Footnotes:

- a. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. The project applicant shall then identify feasible improvements (within the Traffic Impact Study) that will restore/and maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note b), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating the project's direct significant and/or cumulatively considerable traffic impacts.
- b. All LOS measurements are based upon Highway Capacity Manual procedures for peak-hour conditions. However, V/C ratios for roadway segments are estimated on an ADT/24-hour traffic volume basis (using Table 2 of the City's Traffic Impact Study Manual). The acceptable LOS for roadways and intersections is generally "D" ("C" for undeveloped locations).

General Notes:

1. Delay = Average control delay per vehicle measured in seconds for intersections or minutes for ramp meters
2. LOS = Level of Service
3. V/C = Volume to Capacity ratio

6.0 ANALYSIS OF EXISTING CONDITIONS

6.1 Peak Hour Intersection Levels of Service

Table 6–1 summarizes the peak hour intersection operations under Existing conditions. As seen in *Table 6–1*, the study intersections are calculated to currently operate at LOS D or better.

Appendix D contains the existing intersection analysis worksheets.

6.2 Daily Street Segment Levels of Service

Table 6–2 summarizes the street segment operations under the Existing conditions. As seen in *Table 6–2*, the following study segment are calculated to currently operate at LOS E:

- La Media Road, from SR 905 EB Ramps to Airway Road
- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

TABLE 6-1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay ^a	LOS ^b
1. La Media Road / SR 905 WB Ramps	Signal	AM PM	24.1 29.6	C C
2. La Media Road / SR 905 EB Ramps	Signal	AM PM	25.1 16.9	C B
3. La Media Road / Airway Road ^c	AWSC ^d	AM PM	13.5 13.7	B B
4. Sanyo Avenue / Otay Mesa Road	Signal	AM PM	13.8 15.1	B B
5. Sanyo Avenue / Project Driveway (north, DNE ¹)	SC ^e	AM PM	— —	— —
6. Sanyo Avenue / Airway Road	AWSC ^d	AM PM	10.6 12.1	B B
7. Airway Road / Harvest Road	AWSC ^d	AM PM	9.4 9.9	A A
8. Airway Road / Project Driveway (west, DNE ¹)	SC ^e	AM PM	— —	— —
9. Airway Road / Project Driveway (east, DNE ¹)	SC ^e	AM PM	— —	— —

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. A traffic signal is in place at this intersection, however, it is not in operation. Therefore, it is analyzed as an all-way stop controlled intersection.
- d. AWSC – All-Way Stop Controlled intersection. Average delay is reported.
- e. SC – Minor street stop Controlled intersection. Worst movement delay is reported.

General Notes:

- 1. DNE – Project driveways do not currently exist.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 6-2
EXISTING STREET SEGMENT OPERATIONS

Street Segment	Classification	Capacity (LOS E) ^a	ADT ^b	LOS ^c	V/C ^d
La Media Road					
SR 905 WB Ramps/St. Andrews Ave to SR 905 EB Ramps	6-lane Prime Arterial	60,000	18,311	A	0.305
SR 905 EB Ramps to Airway Road	3-lane Collector (2 southbound lanes; 1 northbound lane)	15,000	13,864	E	0.924
Sanyo Avenue					
Otay Mesa Road to Project Driveway (north)	4-lane Collector	15,000	5,023	B	0.335
Project Driveway (north) to Airway Road	4-lane Collector	15,000	5,592	B	0.373
Otay Mesa Road					
Harvest Road to Sanyo Avenue	4-lane Collector (continuous left-turn lane)	30,000	11,456	B	0.382
Airway Road					
La Media Road to Harvest Road	2-Lane Collector with two-way left-turn lane ^e	15,000	5,682	B	0.379
Harvest Road to Project Driveway (west)	3-Lane Collector (2 westbound lanes; 1 eastbound lane)	15,000	7,500	C	0.500
Project Driveway (west) to Project Driveway (east)	2-Lane Collector	8,000	7,500	E	0.938
Project Driveway (east) to Sanyo Avenue	2-Lane Collector	8,000	7,500	E	0.938

Footnotes:

- a. Capacities based on City of San Diego's Roadway Classification Table.
- b. Average Daily Traffic Volumes.
- c. Level of Service.
- d. Volume to Capacity.
- e. Airway Road between La Media Road and Harvest Road predominantly includes three lanes with a raised median or exclusive left-turn pockets. To be conservative, a reduced capacity of 15,000 for a 2-lane Collector with a two-way left-turn lane was used for analysis purposes.

7.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

7.1 Trip Generation

The Project proposes the construction of 232,969 square feet (sf) of warehousing and distribution use for up to eight (8) tenants, and 10,000 sf of multi-tenant office use. Based on the proposed land use types, the rates for “warehousing” and “commercial office” found in the City of San Diego’s *Trip Generation Manual, May 2003* were used for the proposed Project.

Table 7–1 tabulates the total Project traffic generation. The total Project is calculated to generate approximately 1,462 ADT with 214 trips (158 inbound / 56 outbound) during the AM peak hour and 229 trips (83 inbound / 146 outbound) during the PM peak hour.

TABLE 7–1
PROJECT TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate ^a	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Warehousing	232,969 KSF	5 /KSF	1,165	15%	70:30	123	52	175	16%	40:60	75	112	187
Commercial Office	10.00 KSF	Log formula ^b	297	13%	90:10	35	4	39	14%	20:80	8	34	42
Total		—	1,462	—	—	158	56	214	—	—	83	146	229

Footnotes:

a. Rate is based on City of San Diego’s Trip Generation Manual.

b. $\text{Ln (ADT)} = 0.756 \text{ Ln (KSF)} + 3.95$

7.2 Trip Distribution/Assignment

Access to the Project site is proposed via two (2) driveways on Airway Road and one (1) driveway on Sanyo Avenue. The westerly driveway on Airway Road will be used by light-vehicles only and will be restricted by a raised median to allow right-in and right-out movements only. The easterly driveway on Airway Road will be used by trucks accessing the site and would allow right-in, right-out and left-in movements while prohibiting left-turn outbound movements. The driveway on Sanyo Avenue will allow full movements and be used by light vehicles only. Project traffic was distributed and assigned to the street system based on the number of loading docks (45), existing traffic patterns in the area, review of trip distribution of similar land uses from recently approved development projects in the vicinity, anticipated traffic patterns to and from the site, and the Project’s proximity to state highways and arterials. **Figure 7–1** shows the Project traffic distribution. **Figure 7–2** shows the total Project traffic volumes.



8.0 ANALYSIS OF EXISTING + PROJECT CONDITIONS

Project traffic was added onto existing traffic volumes to determine Existing + Project volumes. *Figure 8-1* shows the Existing + Project traffic volumes.

8.1 Peak Hour Intersection Levels of Service

Table 8-1 summarizes the peak hour intersection operations under the Existing + Project scenario. As seen in *Table 8-1*, with the addition of Project traffic, the study intersections are calculated to continue operating at LOS D or better.

Appendix E contains the Existing + Project intersection analysis worksheets.

8.2 Daily Street Segment Levels of Service

Table 8-2 summarizes the street segment operations under the Existing + Project scenario. As seen in *Table 8-2*, with the addition of Project traffic, the following study segment are calculated to continue operating at LOS E or F:

- La Media Road, from SR 905 EB Ramps to Airway Road
- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

Based on the City of San Diego's significance criteria, a **significant direct project impact** is identified on the following segments as the project traffic contribution exceeds the allowable threshold.

- La Media Road, from SR 905 EB Ramps to Airway Road (LOS E)
- Airway Road, from Project Driveway (west) to Project Driveway (east) (LOS F)
- Airway Road, from Project Driveway (east) to Sanyo Avenue (LOS E)

Mitigation measures for these impacts are discussed in detail in *Section 13.2*.

TABLE 8-1
EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
1. La Media Road / SR 905 WB Ramps	Signal	AM	24.1	C	24.3	C	0.2	No
		PM	29.6	C	29.8	C	0.2	No
2. La Media Road / SR 905 EB Ramps	Signal	AM	25.1	C	25.6	C	0.5	No
		PM	16.9	B	17.0	B	0.1	No
3. La Media Road / Airway Road ^d	AWSC ^e	AM	13.5	B	19.2	C	5.7	No
		PM	13.7	B	18.3	C	4.6	No
4. Sanyo Avenue / Otay Mesa Road	Signal	AM	13.8	B	15.7	B	1.9	No
		PM	15.1	B	16.2	B	1.1	No
5. Sanyo Avenue / Project Driveway (north, DNE ¹)	SC ^f	AM	–	–	14.1	B	–	No
		PM	–	–	13.1	B	–	No
6. Sanyo Avenue / Airway Road	AWSC ^e	AM	10.6	B	11.2	B	0.6	No
		PM	12.1	B	12.8	B	0.7	No
7. Airway Road / Harvest Road	AWSC ^e	AM	9.4	A	10.3	B	0.9	No
		PM	9.9	A	10.4	B	0.5	No
8. Airway Road / Project Driveway (west, DNE ¹)	SC ^f	AM	–	–	9.4	A	–	No
		PM	–	–	10.5	B	–	No
9. Airway Road / Project Driveway ^g (east, DNE ¹)	SC ^f	AM	–	–	11.2	B	–	No
		PM	–	–	13.4	B	–	No

Footnotes:

- Average delay expressed in seconds per vehicle.
- Level of Service.
- Δ denotes a project-induced increase in delay.
- A traffic signal is in place at this intersection, however, it is not in operation. Therefore, it is analyzed as an all-way stop controlled intersection.
- AWSC – All-Way Stop Controlled intersection. Average delay is reported.
- SC – Minor street stop Controlled intersection. Worst movement delay is reported.
- 100% heavy vehicle traffic assumed in the analysis.

General Notes:

- DNE – does not exist prior to the project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 8-2
EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Classification	Existing Capacity (LOS E) ^a	Existing			Existing + Project			Δ^e	Sig?
			ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
La Media Road										
SR 905 WB Ramps/ St. Andrews Ave to SR 905 EB Ramps	6-lane Prime Arterial	60,000	18,311	A	0.305	18,776	A	0.313	0.008	No
SR 905 EB Ramps to Airway Road	3-lane Collector (2 southbound lanes; 1 northbound lane)	15,000	13,864	E	0.924	14,724	E	0.982	0.057	Yes
Sanyo Avenue										
Otay Mesa Road to Project Driveway (north)	4-lane Collector	15,000	5,023	B	0.335	5,505	B	0.367	0.032	No
Project Driveway (north) to Airway Road	4-lane Collector	15,000	5,592	B	0.373	5,988	B	0.399	0.026	No
Otay Mesa Road										
Harvest Road to Sanyo Avenue	4-lane Collector (continuous left-turn lane)	30,000	11,456	B	0.382	11,840	B	0.395	0.013	No
Airway Road										
La Media Road to Harvest Road	2-Lane Collector with two-way left- turn lane ^f	15,000	5,682	B	0.379	6,557	B	0.437	0.058	No
Harvest Road to Project Driveway (west)	3-Lane Collector (2 westbound lanes; 1 eastbound lane)	15,000	7,500	C	0.500	8,394	C	0.560	0.060	No
Project Driveway (west) to Project Driveway (east)	2-Lane Collector	8,000	7,500	E	0.938	8,156	F	1.020	0.082	Yes
Project Driveway (east) to Sanyo Avenue	2-Lane Collector	8,000	7,500	E	0.938	7,912	E	0.989	0.051	Yes

Footnotes:

- a. Capacities based on City of San Diego's Roadway Classification & LOS table (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio
- e. Δ denotes a project-induced increase in the Volume to Capacity ratio
- f. Airway Road between La Media Road and Harvest Road predominantly includes three lanes with a raised median or exclusive left-turn pockets. To be conservative, a reduce capacity of 15,000 for a 2-lane Collector with a two-way left-turn lane was used for analysis purposes.

General Notes:

BOLD typeface indicates a potentially significant impact.

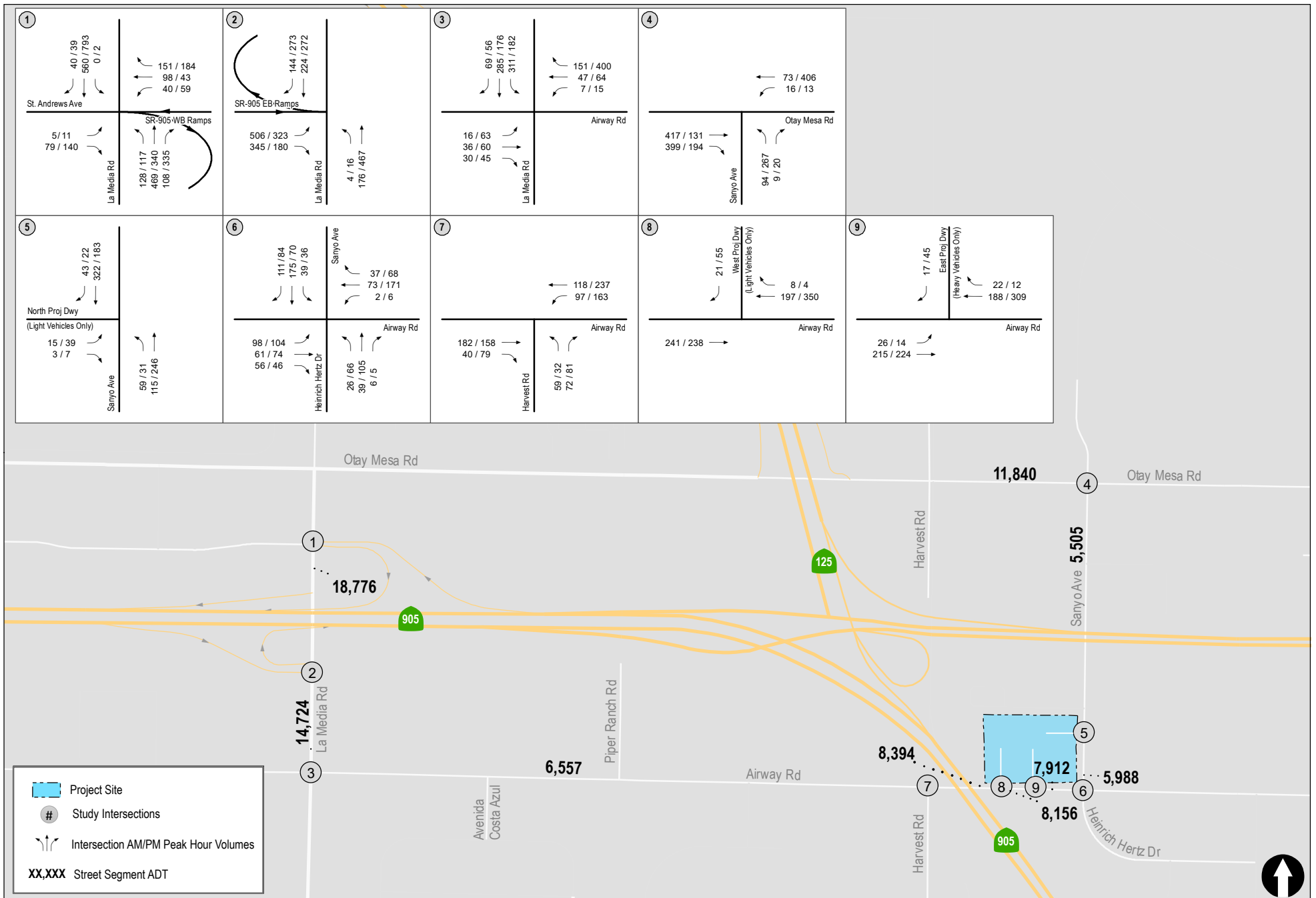


Figure 8-1
Existing + Project Traffic Volumes

9.0 CUMULATIVE PROJECTS

Cumulative projects represent reasonably foreseeable planned development that contributes to background traffic conditions for the Near-Term (Opening Year 2022) scenarios. LLG researched ongoing cumulative project development in the study area that were recently approved or projects that are currently under review. A total of nineteen (19) cumulative projects were identified for consideration in the Near-Term (Opening Year 2022) scenarios.

Table 9-1 contains a list of cumulative projects that were considered in the Near-Term (Opening Year 2022) analysis. **Figure 9-1** shows the locations of the cumulative projects. **Figure 9-2** shows the cumulative projects traffic volumes. **Appendix F** contains additional information regarding the cumulative projects.

**TABLE 9-1
CUMULATIVE PROJECTS**

Project Name	Land Use	Estimated ADT ^a	AM Peak Hour (In/Out) ^a	PM Peak Hour (In/Out) ^a	Status
1. 7-Eleven (PTS 540084)	Convenience Store	1,800	144 (72 / 72)	144 (72 / 72)	Approved
2. Azul Playa Del Sol/Luna	Residential	4,440	356 (71 / 285)	400 (280 / 120)	Constructed, partially occupied
3. Cesar Solis Park	Park	750	30 (0 / 30)	60 (0 / 60)	Constructed and Open
4. Candlelight (PTS #40329)	Residential	2,850	228 (46 / 182)	257 (180 / 77)	Approved
5. Southview (PTS370044)	Residential	1,662	133 (27 / 106)	299 (105 / 194)	Constructed and Open
6. Southview East (PTS #371807)	Residential	816	65 (13 / 51)	220 (51 / 169)	Under construction
7. Southwind (PTS 412529)	Residential	800	64 (13 / 51)	80 (56 / 24)	Under Review
8. Handler Retail Center (PTS 659064)	Motel	1,701	136 (54 / 82)	153 (61 / 92)	Under review ^c
	Restaurant (sit-down high turnover)	3,120	250 (125 / 125)	250 (150 / 100)	
	Fast-food (with drive-through)	4,200	168 (101 / 67)	336 (168 / 168)	
9. Arco #5770 (PTS 110390)	Gas Station	60	4 (2 / 2)	4 (2 / 2)	Approved
10. Marijuana Production Facility (PTS 585510)	Marijuana Facility	346	69 (62 / 7)	69 (14 / 55)	Approved
11. California Terraces PA 61 (PTS #605191)	Mixed Use Residential / Commercial	4,716	252 (101 / 151)	486 (271 / 215)	Approved
12. Cross Border Facility (Phase 2) ^b	Cross Border Facility	24,700	1,056 (606 / 450)	1,167 (587 / 580)	Approved
13. Metro Airpark (Phase 1)	Airport / Retail	1,000	99 (77 / 22)	106 (34 / 72)	Approved
14. La Media Retail (PTS #334235)	Commercial / Retail	8,660	310 (183 / 127)	812 (407 / 405)	Pending Approval
15. Sunroad Otay Mesa (Phase 1 and Phase 2) (PTS #538140) (called Landmark at Otay)	Warehouse	4,225	633 (444 / 189)	676 (270 / 406)	Under Construction
16. Lumina (Phase 1) (PTS #555609) ^c	Mixed Use Residential / Commercial	11,151	673 (187 / 486)	1,048 (646 / 402)	Approved

**TABLE 9-1
CUMULATIVE PROJECTS**

Project Name	Land Use	Estimated ADT ^a	AM Peak Hour (In/Out) ^a	PM Peak Hour (In/Out) ^a	Status
17. Lumina (Phase 2) (PTS #555609) ^c	Mixed Use Residential / Commercial	15,181	1,214 (390 / 824)	1,532 (944 / 588)	Approved
18. Otay 250 (East Otay Mesa Specific Plan Amendment) ^d	Mixed Use Residential / Commercial	34,124	2,785 (1,090 / 1,695)	3,474 (2,000 / 1,474)	Approved
19. Airway Logistics Center	Warehousing and Office	1,518	222 (165 / 57)	237 (86 / 151)	Approved

Footnotes:

- a. Trip generation obtained from *Otay Mesa Lumina TIS*, February 20, 2019
- b. Phase 2 of the Cross Border Facility Project is not expected to be completed until the Year 2023, according to the information provided in the Final Lumina TIA (February 2019). Therefore, this project is not expected to generate additional trips to the study area prior to the Proposed Project's Opening Day by Year 2022.
- c. Phase 1 and 2 of the Lumina Project is not expected to be completed until the Year 2023 (Phase 1) and Year 2027 (Phase 2), according to the information provided in the Final Lumina TIA (February 2019). Therefore, this project is not expected to generate additional trips to the study area prior to the Proposed Project's Opening Day by Year 2022.
- d. Otay 250 project expected opening day is late Year 2022. Therefore, this project is not expected to generate additional trips to the study area prior to the Proposed Project's Opening Day.
- e. As of writing of this report, an updated project description is currently under review at the City of San Diego, which includes a mixed-use development with Residential and Commercial for 560 dwelling units, 56 affordable dwelling units and approx. 7,500 SF commercial space generating 4,437 ADT with 325 AM (88 in, 237 out) peak hour trips and 404 PM (265 in, 139 out) peak hour trips. This updated project description generates lower trips than the project description included in the above table, therefore representing a conservative analysis.

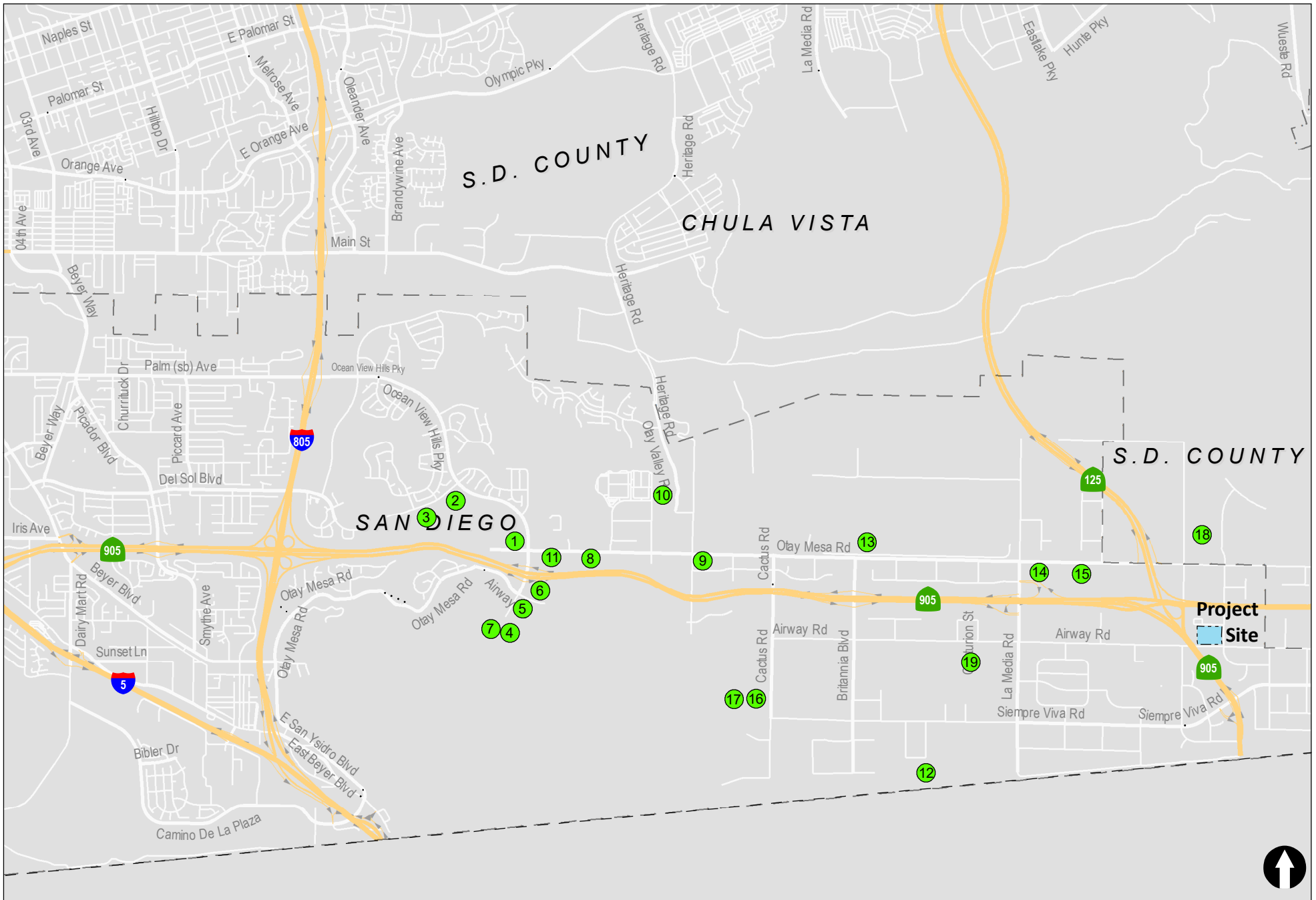


Figure 9-1
Cumulative Projects Location Map



Figure 9-2
Cumulative Projects Traffic Volumes

10.0 ANALYSIS OF NEAR-TERM (OPENING YEAR 2022) CONDITIONS

10.1 Near-Term Network Assumptions

No changes to the street network or intersection geometry from existing conditions were assumed for the analysis of this scenario.

10.2 Near-Term Traffic Volumes

Near-Term (Opening Year 2022) traffic volumes were calculated for the study area by adding the total cumulative projects traffic volumes shown on *Figure 9–2* onto the existing traffic volumes.

Figure 10–1 shows the Near-Term (Opening Year 2022) traffic volumes.

10.3 Near-Term (Opening Year 2022) Analysis

10.3.1 Peak Hour Intersection Levels of Service

Table 10–1 summarizes the peak hour intersection operations under the Near-Term (Opening Year 2022) conditions. As seen in *Table 10–1*, the study intersections are calculated to operate at LOS D or better.

Appendix G contains the Near-Term (Opening Year 2022) intersection analysis worksheets.

10.3.2 Daily Street Segment Levels of Service

Table 10–2 summarizes the street segment operations under the Near-Term (Opening Year 2022) conditions. As seen in *Table 10–2*, the following study segment are calculated to operate at LOS F:

- La Media Road, from SR 905 EB Ramps to Airway Road
- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

10.4 Near-Term (Opening Year 2022) + Project Analysis

Near-Term (Opening Year 2022) + Project traffic volumes were calculated by adding the Project traffic volumes to the Near-Term (Opening Year 2022) traffic volumes. *Figure 10–2* shows the Near-Term (Opening Year 2022) + Project traffic volumes.

10.4.1 Peak Hour Intersection Levels of Service

Table 10–1 summarizes the peak hour intersection operations under the Near-Term (Opening Year 2022) + Project conditions. As seen in *Table 10–1*, with the addition of Project traffic, the study intersections are calculated to continue to operate at LOS D or better.

Appendix H contains the Near-Term (Opening Year 2022) + Project intersection analysis worksheets.

10.4.2 *Daily Street Segment Levels of Service*

Table 10–2 summarizes the street segment operations under the Near-Term (Opening Year 2022) + Project conditions. As seen in *Table 10–2*, with the addition of Project traffic, the following study segments are calculated to continue to operate at LOS F:

- La Media Road, from SR 905 EB Ramps to Airway Road
- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

Based on the City of San Diego’s significance criteria, a **significant direct project impact** is identified on the following segments as the project traffic contribution exceeds the allowable threshold.

- La Media Road, from SR 905 EB Ramps to Airway Road (LOS F)
- Airway Road, from Project Driveway (west) to Project Driveway (east) (LOS F)
- Airway Road, from Project Driveway (east) to Sanyo Avenue (LOS F)

Mitigation measures for these impacts are discussed in detail in *Section 13.2*.

**TABLE 10-1
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Near-Term (Opening Year 2022)		Near-Term (Opening Year 2022) + Project		Δ^c	Sig?
			Delay ^a	LOS ^b	Delay	LOS		
1. La Media Road / SR 905 WB Ramps	Signal	AM	25.4	C	25.6	C	0.2	No
		PM	34.7	C	34.8	C	0.1	No
2. La Media Road / SR 905 EB Ramps	Signal	AM	26.2	C	26.6	C	0.4	No
		PM	18.9	B	19.0	B	0.1	No
3. La Media Road / Airway Road ^d	AWSC ^e	AM	17.2	C	26.2	D	9.0	No
		PM	23.0	C	31.8	D	8.8	No
4. Sanyo Avenue / Otay Mesa Road	Signal	AM	13.9	B	15.8	B	1.9	No
		PM	15.2	B	16.3	B	1.1	No
5. Sanyo Avenue / Project Driveway (north, DNE ¹)	SC ^f	AM	–	–	14.1	B	–	No
		PM	–	–	13.1	B	–	No
6. Sanyo Avenue / Airway Road	AWSC ^e	AM	10.7	B	11.3	B	0.6	No
		PM	12.4	B	13.1	B	0.7	No
7. Airway Road / Harvest Road	AWSC ^e	AM	9.5	A	10.5	B	1.0	No
		PM	9.9	A	10.5	B	0.6	No
8. Airway Road / Project Driveway (west, DNE ¹)	SC ^f	AM	–	–	9.4	A	–	No
		PM	–	–	10.5	B	–	No
9. Airway Road / Project Driveway ^g (east, DNE ¹)	SC ^f	AM	–	–	11.2	B	–	No
		PM	–	–	13.6	B	–	No

Footnotes:

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes a project-induced increase in delay.
- d. A traffic signal is in place at this intersection, however, it is not in operation. Therefore, it is analyzed as an all-way stop controlled intersection.
- e. AWSC – All-Way Stop Controlled intersection. Average delay is reported.
- f. SC – Minor street Stop Controlled intersection. Worst movement delay is reported.
- g. 100% heavy vehicle traffic assumed in the analysis.

General Notes:

1. DNE – does not exist prior to the project.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 10-2
NEAR-TERM STREET SEGMENT OPERATIONS

Street Segment	Classification	Existing Capacity (LOS E) ^a	Near-Term (Opening Year 2022)			Near-Term (Opening Year 2022) + Project			Δ^e	Sig?
			ADT ^b	LOS ^c	V/C ^d	ADT	LOS	V/C		
La Media Road										
SR 905 WB Ramps/ St. Andrews Ave to SR 905 EB Ramps	6-lane Prime Arterial	60,000	27,559	B	0.459	28,024	B	0.467	0.008	No
SR 905 EB Ramps to Airway Road	3-lane Collector (2 northbound lanes; 1 southbound lane)	15,000	18,917	F	1.261	19,777	F	1.318	0.057	Yes
Sanyo Avenue										
Otay Mesa Road to Project Driveway (north)	4-lane Collector	15,000	5,023	B	0.335	5,505	B	0.367	0.032	No
Project Driveway (north) to Airway Road	4-lane Collector	15,000	5,592	B	0.373	5,988	B	0.399	0.026	No
Otay Mesa Road										
Harvest Road to Sanyo Avenue	4-lane Collector (continuous left-turn lane)	30,000	12,986	B	0.433	13,370	B	0.446	0.013	No
Airway Road										
La Media Road to Harvest Road	2-Lane Collector ^f	15,000	6,300	B	0.420	7,175	C	0.478	0.058	No
Harvest Road to Project Driveway (west)	3-Lane Collector (2 westbound lanes; 1 eastbound lane)	15,000	8,018	C	0.535	8,912	C	0.594	0.060	No
Project Driveway (west) to Project Driveway (east)	2-Lane Collector	8,000	8,018	F	1.002	8,674	F	1.084	0.082	Yes
Project Driveway (east) to Sanyo Avenue	2-Lane Collector	8,000	8,018	F	1.002	8,430	F	1.054	0.051	Yes

Footnotes:

- a. Capacities based on City of San Diego's Roadway Classification & LOS table (*See Appendix C*).
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio
- e. Δ denotes a project-induced increase in the Volume to Capacity ratio
- f. Airway Road between La Media Road and Harvest Road predominantly includes three lanes with a raised median or exclusive left-turn pockets. To be conservative, a reduced capacity of a 2-lane Collector with a two-way left-turn lane was used for analysis purposes.

General Notes:

BOLD typeface indicates a potentially significant impact.

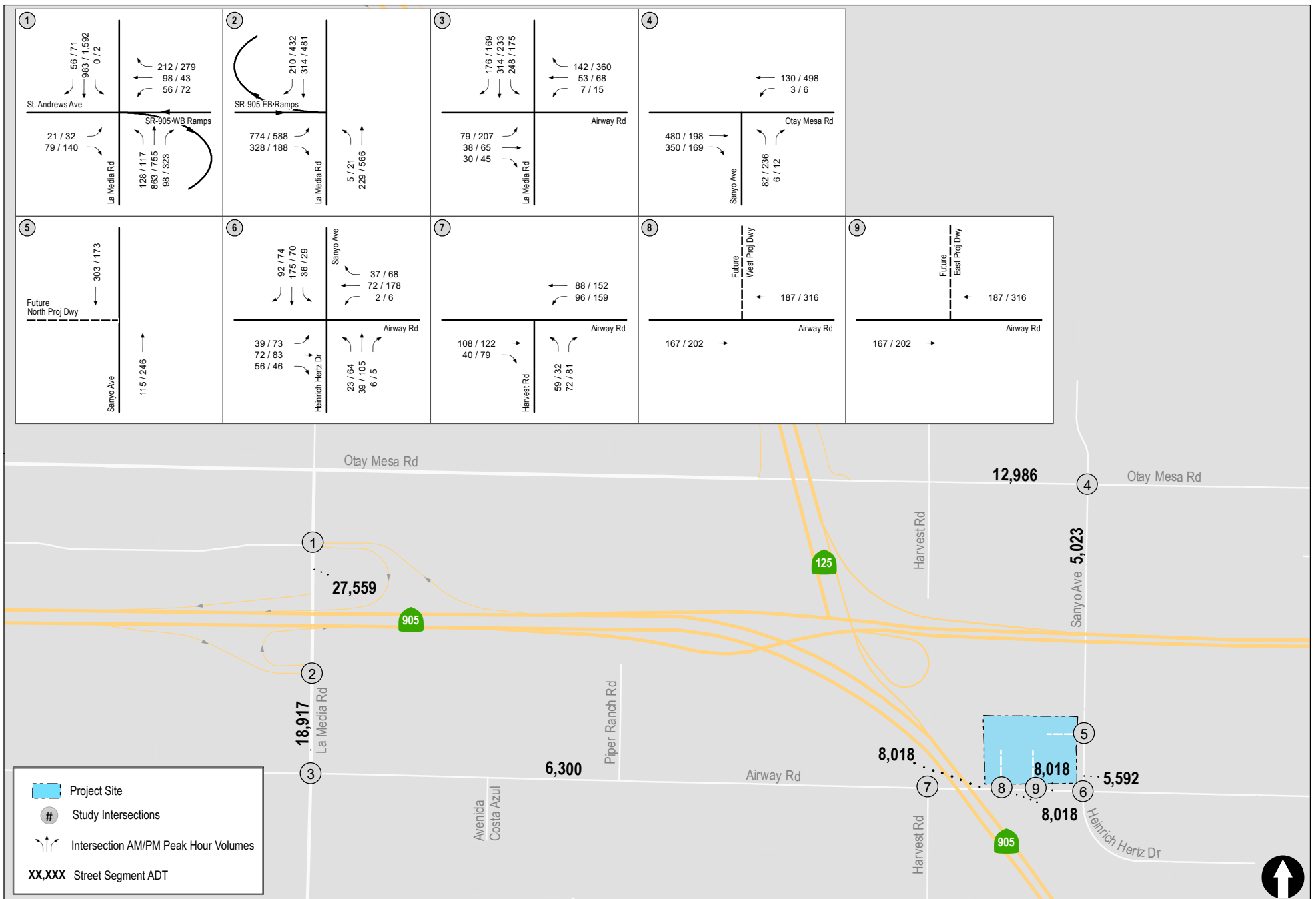


Figure 10-1
Near-Term (Opening Year 2022) Traffic Volumes

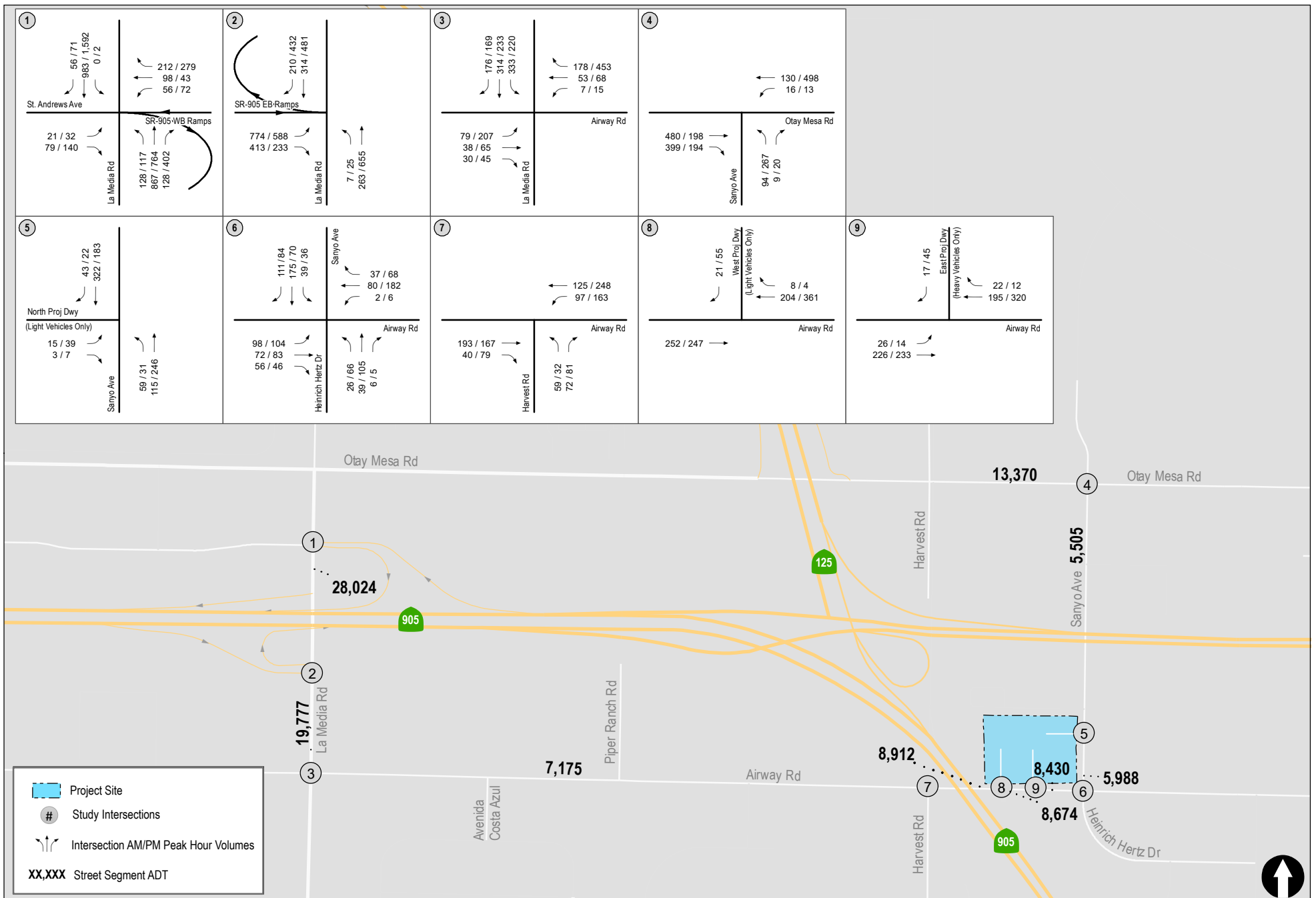


Figure 10-2
Near-Term (Opening Year 2022) + Project Traffic Volumes

Sanyo Logistics Center

11.0 SITE ACCESS AND ACTIVE TRANSPORTATION

11.1 Access and Frontage Improvements

The Project proposes access to the site via two (2) driveways on Airway Road and one (1) driveway on Sanyo Avenue. The westerly driveway on Airway Road will be used by light-vehicles only and will be restricted by a raised median to allow right-in and right-out movements only. The easterly driveway on Airway Road will be used by trucks accessing the site and would allow right-in, right-out and left-in movements while prohibiting left-turn outbound movements. The driveway on Sanyo Avenue will allow full movements and be used by light vehicles only.

As a part of the Project frontage improvements, consistent with the Airway Road ultimate classification of a 4-lane Major, per the City of San Diego Street Design Manual, the Project is proposing to widen Airway Road along the Project frontage by 38 feet from the centerline and provide a 22-foot parkway to provide the ultimate roadway width. The project will dedicate between 11 feet and 40 feet along its frontage on Airway Road.

As a part of the Project frontage improvements, consistent with the Sanyo Avenue ultimate classification of a 4-lane Collector with a two-way left-turn lane (82 feet curb-to-curb), per the City of San Diego Street Design Manual, the Project is proposing to widen Sanyo Avenue along the Project frontage by 41 feet from the centerline and provide a 14-foot parkway to provide the ultimate roadway width. The project will dedicate 13 feet along its frontage on Airway Road. **Appendix I** contains a drawing showing the driveway and frontage improvement designs.

A queuing analysis was conducted for the eastbound left-turn pocket at the easterly project driveway/ Airway Road intersection to determine if the proposed turn pocket is able to handle the heavy-vehicle project traffic. **Table 11-1** shows the results of the queuing analysis. As shown in **Table 11-1**, the project traffic heavy vehicle queues are accommodated within the provided left-turn storage. **Appendix E** and **H** includes the queuing analysis worksheets for the Existing + Project and Near-Term (Opening Year 2022) + Project, respectively.

TABLE 11-1
QUEUE SUMMARY

Intersection	Movement	Storage	Peak Hour	Existing + Project	Near-Term (Opening Year 2022) + Project
9. Airway Road / Project Driveway (east)	EBL	160'	AM	55'	55'
			PM	55'	55'

General Notes:

1. 95th percentile queues reported

11.2 Pedestrian, Bicycle and Transit Mobility

Along Airway Road on the project frontage, no sidewalk is currently provided. Along Sanyo Avenue on the project frontage, a contiguous sidewalk exists today. As a part of the project frontage improvements, per the current Street Design Manual, the Project will provide half-width improvements to meet the ultimate classification of a 4-lane Major on Airway Road and 4-lane Collector with two-way left-turn lane on Sanyo Avenue. These frontage improvements would include a 22-foot parkway on Airway Road, which would consist of a 6-foot non-contiguous sidewalk and a 16-foot landscape buffer. On Sanyo Avenue, a 14' parkway is proposed, which would consist of a 5-foot non-contiguous sidewalk and a 9-foot landscape buffer.

There are no bicycle facilities currently provided along Airway Road along the project frontage. Bike Lanes are provided on Sanyo Avenue on both sides of the roadway between Otay Mesa Road and Airway Road. As a part of the project frontage improvements, the project will provide half-width improvements to accommodate the ultimate classification of Airway Road and Sanyo Avenue that would include buffered bike lanes on the north side of Airway Road and west side of Sanyo Avenue.

In the project study area, there are four (4) existing bus stops located as described below:

- Bus stops for MTS Route 909 is located on both sides of Sanyo Avenue, south of Otay Mesa Road and on both sides of Heinrich Hertz Drive at Neils Bohr Court. Route 909 provides service between Southwestern Higher Education Center Otay Mesa and the Otay Mesa Transit Center. Weekday service begins at 5:05 AM with 1-hour headways and ends at 7:46 PM.
- A bus stop for MTS Route 905 is also located on west side of La Media Road at the SR 905 EB Ramps intersection. Route 905 provides service between the Iris Avenue Transit Center and Otay Mesa Transit Center. Weekday service begins at 4:10 AM with 30-minute headways and ends at 10:00 PM.

12.0 PARKING

The section below discusses the City of San Diego parking requirements for the proposed project.

12.1 Automobile Parking Requirements

According to Table 142.05E in the *San Diego Municipal Code, Chapter 14: General Regulation, Article 2: General Development Regulation, Division 5: Parking Regulations*, a minimum of 2.9 parking spaces per 1,000 square-feet is required for office uses and 1 space per 1,000 square-feet is required for warehouse use. Based on the above minimum parking requirements, the project required parking is calculated as 264 spaces with 30 parking spaces for the office and 234 spaces for the warehouse use. The City's minimum required parking for accessible parking spaces is based on California Building Code (Section 1129B), which states that 7 accessible parking spaces are required for uses where the total required number of parking spaces provided are 300 or less.

The proposed project will provide a total of 270 automobile parking spaces, which includes a total of 10 accessible parking spaces. Therefore, the proposed project meets the City's overall minimum parking and accessible parking requirements.

12.2 Motorcycle Parking Requirements

The City requires that motorcycle parking be provided at a ratio of 2% of the total automobile parking required, or two spaces, whichever is greater. Based on the City's parking requirements, a minimum of 6 motorcycle parking spaces are required. The project will provide a total of 6 motorcycle parking spaces, therefore meeting the City's minimum parking requirements.

12.3 Bicycle Parking Requirements

Per Municipal Code Section 142.0530(e)(1)(A), the project would provide the minimum requirement of two (2) short-term bicycle parking spaces for the proposed office use. Per Municipal Code Section 142.0530(e)(1)(D), the proposed industrial use would be exempt from providing short-term bicycle parking spaces. The project would also be subject to 2019 California Green Building Code Section 5.106.4.1.1, which requires non-residential projects provide short-term bicycle parking spaces equal to either five percent of new visitor vehicle parking spaces or a one, two-bike capacity rack, whichever is greater. The future tenants have not been identified yet. Therefore, employee parking spaces and visitor parking spaces have not been differentiated. As the project proposes warehouse tenant spaces, visitor parking is anticipated to be minimal. The project would provide a total of ten (10) short-term bicycle parking spaces by installing one, five-space rack adjacent at the southwest corner of the project site, and one, five-space rack on north side of the project site west of the loading dock. This number of short-term bicycle parking spaces is anticipated to exceed the project requirements described above; the additional eight short-term bicycle parking spaces beyond the two required for the office use per the Municipal Code would satisfy the 2019 California Green Building Code requirement under a scenario in which 160 out of 270 vehicle parking spaces provided by the project would be used as visitor parking. Per Section 142.0530(e)(2)(A), the project would be required to provide 14 long-term bicycle parking spaces (5% of required vehicle parking [264

spaces])). To meet this requirement, the project would provide at least 14 long-term bicycle parking spaces.

12.4 Carpool, Electric Vehicles (EV's) and Zero Emission Vehicles Parking Requirements

The City requires that carpool and zero emission vehicle parking be provided at a ratio of 8% of the total automobile parking required if there are more than 201 automobile parking spaces provided on the project site. Based on the City's parking requirements, a minimum of 22 carpool and zero emission vehicle parking spaces are required. The project will provide a total of 22 carpool and zero emission parking spaces, therefore meeting the City's minimum parking requirements.

13.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

13.1 Significance of Impacts

Per the City's significance thresholds and the analysis methodology presented in this report, project related traffic is calculated to cause significant direct impacts within the study area at the following locations. The project proposes improvements on one (1) segment of La Media Road and two (2) segments of Airway Road to ensure consistency with the roadway classification as identified in the Otay Mesa Community Plan EIR and to mitigate direct project impacts:

Intersections

- None

Street Segments

- La Media Road, from SR 905 EB Ramps to Airway Road
- Airway Road, from Project Driveway (west) to Project Driveway (east)
- Airway Road, from Project Driveway (east) to Sanyo Avenue

13.2 Mitigation

The following mitigation measures will mitigate the significant direct impacts to below a level of significance.

- **La Media Road between SR 905 EB Ramps and Airway Road** – To mitigate the project's impact to below a level of significance, the project will widen La Media Road on the east side by approximately 14 feet to construct a second northbound through lane from Airway Road to approximately 600 feet north of Airway Road, where the road is already widened to three through lanes.

This mitigation measure has already been proposed as part of the Airway Logistics Center project (PTS #665589). The Airway Logistics Center is anticipated to complete this improvement, which would reduce the proposed project's impact to less than significant. If the additional northbound lane is not first constructed by the Airway Logistics project, the proposed project will construct this improvement to reduce the impact to below a level of significance. This mitigation will be permitted and bonded prior to the issuance of the first building permit and will be completed and operational prior to the issuance of any occupancy permit, satisfactory to the City Engineer. **Appendix J** contains the conceptual drawing of this improvement.

- **Airway Road between the Project's westerly driveway and Sanyo Avenue** – To mitigate the project's impact to below a level of significance, as a part of the Project frontage improvements, consistent with the Airway Road ultimate classification of a 4-lane Major, per the City of San Diego Street Design Manual, the Project is proposing to widen and construct Airway Road along the Project frontage by 38 feet from the centerline and provide a 22-foot

parkway to provide the ultimate roadway width and cross-section. This will include the construction of the raised median that will restrict vehicular access as discussed in this report.

This mitigation will be permitted and bonded prior to the issuance of the first building permit and will be completed and operational prior to the issuance of first occupancy permit, satisfactory to the City Engineer. *Appendix I* contains the conceptual drawing of this improvement.

Tables 13–1 and **13–2** shows the post mitigation analysis reducing the project impacts to less than significant.

TABLE 13-1
EXISTING + PROJECT POST-MITIGATION STREET SEGMENT ANALYSIS

Street Segment	Functional Classification	Capacity (LOS E) ^a	Existing			Existing + Project			Improvement Classification	Mitigation Capacity	Existing + Project with Mitigation		
			ADT ^b	LOS ^c	V/C ^d	ADT ^b	LOS ^c	V/C ^d			ADT	LOS	V/C
La Media Road													
SR 905 EB Ramps to Airway Road	3-lane Collector (2 northbound lanes; 1 southbound lane)	15,000	13,864	E	0.924	14,724	E	0.982	4-Lane Collector	30,000	14,724	C	0.491
Airway Road													
Project Driveway (west) to Project Driveway (east)	2-Lane Collector	8,000	7,500	E	0.938	8,156	F	1.020	4-Lane Major	40,000	8,156	A	0.204
Project Driveway (east) to Sanyo Avenue	2-Lane Collector	8,000	7,500	E	0.938	7,912	E	0.989	4-Lane Major	40,000	7,912	A	0.198

Footnotes:

- a. Capacities based on City of San Diego Roadway Classification & LOS table.
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio

TABLE 13-2
NEAR-TERM (OPENING YEAR 2022) POST-MITIGATION STREET SEGMENT ANALYSIS

Street Segment	Functional Classification	Capacity (LOS E) ^a	Near-Term (Opening Year 2022)			Near-Term (Opening Year 2022) + Project			Improvement Classification	Mitigation Capacity	Near-Term (Opening Year 2022) + Project with Mitigation		
			ADT ^b	LOS ^c	V/C ^d	ADT ^b	LOS ^c	V/C ^d			ADT	LOS	V/C
La Media Road SR 905 EB Ramps to Airway Road	3-lane Collector (2 northbound lanes; 1 southbound lane)	15,000	18,917	F	1.261	19,777	F	1.318	4-Lane Collector	30,000	19,777	C	0.659
Airway Road Project Driveway (west) to Project Driveway (east)	2-Lane Collector	8,000	8,018	F	1.002	8,674	F	1.084	4-Lane Major	40,000	8,674	A	0.217
Project Driveway (east) to Sanyo Avenue	2-Lane Collector	8,000	8,018	F	1.002	8,430	F	1.054	4-Lane Major	40,000	8,430	A	0.211

Footnotes:

- a. Capacities based on City of San Diego Roadway Classification & LOS table.
- b. Average Daily Traffic
- c. Level of Service
- d. Volume to Capacity ratio